

WHAT IS CLAIMED IS:

1. A wireless communication apparatus connected with one or more slave devices in a network, the wireless communication apparatus having information about the connected slave devices, the apparatus comprising:

a transceiving portion for receiving externally transmitted data, and transmitting a signal; and

a controller for requesting through the transceiving portion a certain slave device of the connected slave devices to perform a function of a master device for a predetermined time, and transmitting Piconet information about the connected slave devices of the network.

2. The wireless communication apparatus of claim 1, wherein the controller exchanges data transmission timing with the certain slave device that is requested to perform the function of the master device.

3. The wireless communication apparatus of claim 1, wherein the controller is connected to a host via a communication interface.

4. The wireless communication apparatus of claim 1, wherein the Piconet information includes an active member address allocated to the connected slave devices in an active mode of the network.

5. A wireless communication apparatus of claim 1, wherein the controller processes the signal requested by a host; and processes the signal received through the transceiving portion.

6. A wireless communication apparatus of claim 1, wherein the transceiving portion processes a signal from the outside and then sends out a transmission-intended packet.

7. A wireless communication apparatus connected with a master device in a network including the master device and slave devices, comprising:

a transceiving portion for receiving externally transmitted data, and transmitting a signal; and

a controller for receiving a request from the master device that requests a certain slave device to perform a function of the master device for a predetermined time.

8. The wireless communication apparatus of claim 7, wherein the controller is operable to receive Piconet information about other slave devices in the network from the master device; and

is operable to communicate with the other slave devices in the network for the predetermined time as a temporary master device.

9. The wireless communication apparatus of claim 7, wherein the controller exchanges data transmission timing with the master device.

10. The wireless communication apparatus of claim 7, wherein the controller enables the certain slave device operating as the temporary master device to communicate with the slave devices, other than the certain slave device, according to a frequency hopping sequence and a clock of the master device.

11. The wireless communication apparatus of claim 7, wherein the Piconet information includes an active member address allocated to the slave devices, other than the certain slave device, in an active mode of the network.

12. The wireless communication apparatus of claim 7, wherein the controller updates the Piconet information about the slave devices, other than the certain slave device, while the certain slave device performs the function of the temporary master device, and sends the updated information to the master device after the predetermined time.

13. A wireless communication method of a wireless communication apparatus which is connected with one or more slave devices in a network, and includes information about the connected slave devices, the wireless communication method comprising the steps of:

requesting a certain slave device of the connected slave devices to perform a function of a master device for a predetermined time; and

sending Piconet information about other slave devices of the connected slave devices of the network to the certain slave device.

14. The wireless communication method of claim 13, further comprising exchanging data transmission timing with the certain slave device requested to perform the function of the master device.

15. The wireless communication method of claim 13, wherein the Piconet information contains an active member address allocated to the other slave devices in an active mode of the network.

16. The wireless communication method of claim 13, wherein the certain slave device receives the Piconet information about the other slave devices from the master device, and communicates as a temporary master device with the other slave devices for the predetermined time.

17. A wireless communication method of a wireless communication apparatus connected with a master device in a network, comprising the steps of:

(a) requesting that a slave device perform a function of a temporary master device for a predetermined time;

(b) receiving Piconet information, from the master device, about other connected slave devices in the network; and

(c) communicating with the other slave devices of the network as the temporary master device for the predetermined time.

18. The wireless communication method of claim 17, wherein step (b) comprises the step of exchanging data transmission timing with the master device.

19. The wireless communication method of claim 17, wherein the Piconet information includes an active member address allocated to the connected slave devices in an active mode of the network.

20. The wireless communication method of claim 17, wherein a slave device performing the function of the temporary master device communicates with the other slave devices according to a frequency hopping sequence and a clock of the master device.

21. The wireless communication method of claim 17, wherein step (c) comprises the step of updating, as the temporary master device, the Piconet information about the other connected slave devices of the network, and sending the updated information to the master device after the predetermined time.

22. A wireless communication system comprising:

one or more slave devices connected to the wireless communication system; and

a master device having information about the connected slave devices wherein

the master device requests a certain slave device of the connected slave devices to perform a function of a temporary master device for a predetermined time, exchanges data transmission timing with the certain slave device, and sends Piconet information about other slave devices of the connected slave device, and

the certain slave device receives the Piconet information about the other slave devices from the master device, and communicates as the temporary master device with the other slave devices for the predetermined time.